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NOTICE OF ALLOWANCE AND FEE(S) DUE

39310 7590 12/16/2009 MBHB/TRADING TECHNOLOGIES 300 SOUTH WACKER DRIVE SUITE 3200 CHICAGO, IL 60606

EXAMINER			
KANER	VO, VIRPI H		
ART UNIT PAPER NUMBER			
3691			
DATE MAILED: 12/16/2	nne		

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676.641	10/01/2003	Steven F. Borsand	03-901	7876

 $\hbox{TITLE OF INVENTION: SYSTEM AND METHOD FOR DYNAMIC QUANTITY ORDERS IN AN ELECTRONIC TRADING ENVIRONMENT \\$

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$0	\$755	03/16/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE: shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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appropriate. All further indicated unless corrects maintenance fee notifica	ed below or directed oth	ng the Patent, advance on perwise in Block 1, by (rders and notification of a) specifying a new co	of main crespor	ntenance fees w ndence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address rate "FEE ADDRESS"
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENT	OR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/676,641 TITLE OF INVENTION	10/01/2003 SYSTEM AND METE	IOD FOR DYNAMIC Q	Steven F. Borsand UANTITY ORDERS IN	N AN E	ELECTRONIC T	FRADI	03-901 NG ENVIRONMENT	7876
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DU	E P	REV. PAID ISSUI	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0		\$0		\$755	03/16/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS					
KANERVO		3691	705-035000					
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha B/122) attached. ication (or "Fee Address)2 or more recent) attach ND RESIDENCE DATA	inge of Correspondence		to 3 inatively ingle fi or ager attorned be prii	registered paten y. irm (having as a nt) and the nam ys or agents. If a nted.	memb es of u no nam	er a 2 o to e is 3	ocument has been filed i
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 Change in Entity Sta Applicant claim 	tus (from status indicate s SMALL ENTITY statu		☐ b. Applicant is no	longer	claiming SMAI	LEN	TITY status. Sec 37 CI	R 1.27(g)(2).
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/676,641	10/01/2003	Steven F. Borsand	03-901	7876		
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MBHB/TRADIN	G TECHNOLOGIE	S	KANERVO, VIRPI H			
300 SOUTH WAC	KER DRIVE		ART UNIT	PAPER NUMBER		
SUITE 3200 CHICAGO, IL 606	506		3691 DATE MAIL ED: 12/16/200	0		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1220 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1220 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	_
10/676,641	BORSAND, STEVEN F.	
Examiner	Art Unit	
VIRPLH. KANERVO	3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
- This communication is responsive to Amendment filed on 06/02/2009.
- The allowed claim(s) is/are 1,3-8,10,11,13-16,19-24 and 26-29.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) \square All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🗌 Other _____.

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691

1. Claims 1, 3-8, 10-11, 13-16, 19-24, and 26-29, are presented for

examination. Applicant filed amendment on 06/02/2009 amending claims

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1, 4-7, 11, 16, 19-21, 24, and 28-29; and canceling claims 9, 12, 18, and

25. After carefully reviewing Applicant's amendment, Examiner withdraws

the outstanding rejection of claims 1, 3-8, 10-11, 13-16, 19-24, and 26-29.

Therefore, claims 1, 3-8, 10-11, 13-16, 19-24, and 26-29, are ALLOWED.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the

changes and/or additions be unacceptable to applicant, an amendment

may be filed as provided by 37 CFR § 1.312. To ensure consideration of

such an amendment, it MUST be submitted no later than the payment of

the issue fee.

Authorization for this examiner's amendment was given in a telephone

interview with attorney Adam Faier on October 1, 2009.

IN THE CLAIMS:

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 (Currently Amended) A method for dynamic quantity orders in an electronic trading environment, the method comprising:

receiving a dynamic quantity order by a computing device of an electronic exchange, wherein the dynamic quantity order comprises a price and a desired order quantity, wherein the dynamic quantity order is associated with an order quantity by the computing device of the electronic exchange, wherein the order quantity is initially the desired order quantity, wherein the dynamic quantity order is placed into an order queue based on the price;

estimating by the computing device of the electronic exchange a potential order quantity at the price, wherein the potential order quantity represents an estimate of an amount of quantity that will be filled at the price;

increasing by the computing device of the electronic exchange the order quantity to an increased order quantity based on the potential order quantity; and dynamically adjusting by the computing device of the electronic exchange the order quantity based on a total **order** quantity in the order queue at the price.

- (Cancelled)
- (Previously Presented) The method of claim 1, wherein the order queue is processed by the electronic exchange such that orders are filled based on a prorata priority.
 - 4. (Previously Presented) The method of claim 3, further comprising: when the dynamic quantity order is received at the electronic exchange, assigning by the computing device of the electronic exchange a first weight parameter to the dynamic quantity order based on the desired order quantity and the total order quantity in the order queue, wherein the order quantity is increased to the increased order quantity further based on the first weight parameter.
- (Previously Presented) The method of claim 1, wherein the dynamic quantity order further comprises a percentage.

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 (Currently Amended) The method of claim 5, wherein the step of estimating the potential order quantity is further based on the percentage.

(Currently Amended) The method of claim 1, wherein the step of
estimating the potential order quantity is based on a default set by the electronic
exchange.

8. (Previously Presented) The method of claim 4, further comprising:

when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new total order quantity in the order queue at the price.

9. (Cancelled)

10. (Original) The method of claim 1, further comprising:

detecting a filled order quantity associated with the dynamic quantity order;

determining that the filled order quantity is not lower than the desired order quantity of the dynamic quantity order; and

attempting to delete a remaining order quantity associated with the increased order quantity.

11. (Currently Amended) The method of claim 1, further comprising:

detecting a filled order quantity associated with the dynamic quantity order;

determining that the filled order quantity is lower that than the desired order quantity of the dynamic quantity order; and

dynamically adjusting the increased order quantity based on a new <u>total</u> order quantity in the order queue at the price.

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(Cancelled)

13. (Currently Amended) The method of claim 1, further comprising:

applying a fee <u>for increasing the order quantity</u> to be paid by a trader associated with the dynamic quantity order for increasing the order quantity.

- (Currently Amended) The method of claim 13, wherein at least a portion of the fee is to be paid to the electronic exchange.
- (Currently Amended) The method of claim 13, wherein the fee is to be
 paid when at least a portion of the order quantity is filled.
- 16. (Currently Amended) A method for dynamic quantity orders in an electronic trading environment, the method comprising:

sending a dynamic quantity order by a client device to an electronic exchange, wherein the dynamic quantity order comprises a price and a desired order quantity to be filled;

receiving the dynamic quantity order by a computing device of the electronic exchange, wherein the dynamic quantity order is associated with an order quantity by the computing device of the electronic exchange, wherein the order quantity is initially the desired order quantity;

placing by the computing device of the electronic exchange the dynamic quantity order in a pro-rata order queue at the price;

estimating by the computing device of the electronic exchange a potential order quantity at the price, wherein the potential order quantity represents an estimate of an amount of quantity that will be filled at the price;

increasing by the computing device of the electronic exchange the order quantity of the dynamic quantity order based on the potential order quantity; and

dynamically adjusting by the computing device of the electronic exchange the increased order quantity based on a current total <u>order</u> quantity in the <u>pro-rata</u> order queue at the price.

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17-18. (Cancelled)

19. (Currently Amended) The method of claim 16, further comprising:

when the dynamic quantity order is received at the electronic exchange, assigning by the computing device of the electronic exchange a first weight parameter to the dynamic quantity order based on the desired order quantity and the current total available order quantity in the pro-rata order queue at the price, wherein the order quantity is increased to the increased order quantity further based on the first weight parameter.

- (Previously Presented) The method of claim 16, wherein the dynamic quantity order further comprises a percentage.
- (Currently Amended) The method of claim 20, wherein the step of
 estimating the potential order quantity is further based on the percentage.
 - 22. (Currently Amended) The method of claim 19, further comprising:

when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new current total order quantity in the pro-rata order queue at the price.

23. (Original) The method of claim 16, further comprising: detecting a filled order quantity associated with the dynamic quantity order:

determining that the filled order quantity is not lower than the desired order quantity of the dynamic quantity order; and

attempting to delete a remaining order quantity associated with the increased order quantity.

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24. (Currently Amended) The method of claim 16, further comprising:

detecting a filled order quantity associated with the dynamic quantity order:

determining that the filled order quantity is lower than the desired order quantity of the dynamic quantity order; and

dynamically adjusting the increased order quantity based on a new current total **order** quantity in the **pro-rata** order queue at the price.

- (Cancelled)
- 26. (Currently Amended) The method of claim 16, further comprising:

applying a fee <u>for increasing the order quantity</u> to be paid by a trader associated with the dynamic quantity order.

- (Currently Amended) The method of claim 26, wherein the fee is to be paid when at least a portion of the order quantity associated with the dynamic quantity order is filled.
- 28. (Currently Amended) A computer readable medium having stored therein instructions executable by a processor to perform a method comprising:

receiving a dynamic quantity order by a computing device of an electronic exchange, wherein the dynamic quantity order comprises a price and a desired order quantity, wherein the dynamic quantity order is associated with an order quantity by the computing device of the electronic exchange, wherein the order quantity is initially the desired order quantity, wherein the dynamic quantity order is placed into an order queue based on the price;

estimating by the computing device of the electronic exchange a potential order quantity at the price, wherein the potential order quantity represents an estimate of an amount of quantity that will be filled at the price;

increasing by the computing device of the electronic exchange the order quantity to an increased order quantity based on the potential order quantity; and

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dynamically adjusting by the computing device of the electronic exchange the order quantity based on a total <u>order</u> quantity in the order queue at the price.

 (Currently Amended) A computer readable medium having stored therein instructions executable by a processor to perform a method comprising:

sending a dynamic quantity order by a client device to an electronic exchange, wherein the dynamic quantity order comprises a price and a desired order quantity to be filled:

receiving the dynamic quantity order by a computing device of the electronic exchange, wherein the dynamic quantity order is associated with an order quantity by the computing device of the electronic exchange, wherein the order quantity is initially the desired order quantity;

placing by the computing device of the electronic exchange the dynamic quantity order in a pro-rata order queue at the price;

estimating by the computing device of the electronic exchange a potential order quantity at the price, wherein the potential order quantity represents an estimate of an amount of quantity that will be filled at the price:

increasing by the computing device of the electronic exchange the order quantity of the dynamic quantity order based on the potential order quantity; and

dynamically adjusting by the computing device of the electronic exchange the increased order quantity based on a current total <u>order</u> quantity in the <u>pro-</u> <u>rata</u> order queue at the price.

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3. Claims 1, 3-8, 10-11, 13-16, 19-24, and 26-29, are allowed. The following

is a statement of reasons for the indication of allowable subject matter:

The claimed invention is directed to a method for adjusting dynamic

quantity orders in an electronic trading environment.

The prior art of record, Nordlicht et al., US patent publication No.

2002/0194115 A1, teaches a system and a method for receiving a

dynamic quantity order at an electronic exchange, wherein the dynamic

quantity order is received in a message comprising a price and a desired

order quantity, wherein the dynamic quantity order is associated with an

order quantity, wherein the order quantity is initially the desired order

quantity, and wherein the dynamic quantity order is sorted based on the

price into an order queue; and dynamically adjusting at the electronic

exchange the order quantity based on a total quantity in the order queue

at the price.

However, the prior art fails to teach a method for performing a sequence

of steps of: "estimating a potential order quantity at the price, wherein the

potential order quantity represents an estimate of an amount of quantity

that will be filled at the price," and "increasing the order quantity to an increased order quantity based on the potential order quantity."

These features are found in independent claims 1, 16, 28, and 29. Therefore, independent claims 1, 16, 28, and 29, are allowable. Claims 3-8, 10-11, and 13-15, are dependent claims depending from independent claim 1; and claims 19-24 and 26-27 are dependent claims depending from independent claim 16. Therefore, dependent claims 3-8, 10-11, 13-15, 19-24, and 26-27, are also allowable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Foley (2003/0216932 A1) discloses automated trading of financial interests.

Silverman (5,136,501) discloses anonymous matching system.

Davidowitz (2004/0267655 A1) discloses method and system for initiating pairs trading across multiple market having automatic foreign exchange price hedge

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Haslett, Tim; Osborne, Charles; Local Rules: Their Application in a Kanban System; International Journal of Operations & Production Management, v20n9 pp1078-1092 (2000)

Thondavadi, Nandu N; Raza, Amir; Information Management Key to ISO 9001; Molding Systems, v56n7 pp 20-25 (September 1998)

Watts, Charles A; Hahn, Chan K; Sohn, Byung-Kyu; Monitoring the Performance of a Reorder Point System: A Control Chart Approach; International Journal of Operations & Production Management, v14n2 pp51-61 (1994)

McKague, Anne; Hooked on Technology; Canadian Datasystems, v23n10 pp 24-26 (October 1991)

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIRPI H. KANERVO whose telephone number is (571)272-9818. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be reached on (571) 272-6771. The fax

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phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status

information for published applications may be obtained from either Private

PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from

a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

Virpi H. Kanervo

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691